Memo. to record From D.S.Welch

Dec. 15,1965.

ORIGINAL

Cherry leaf spot of Prunus serotina in the Allegheny National Forest.

The principal foliage disease of wild black cherry in the Allegheny National Forest is a leaf spot which affects the seedlings and to some extent the small saplings, causing dwarfing, reduced height growth and sometimes death. The suppression of normal height growth extends the period during which the youhg cherry trees are exposed to damage to the terminal growth by browsing deer. The disease is therefore a serious obstacle to the successful establishment of black cherry in the forest.

In recorded reports of the disease the cause has been generally attributed to the fungus Coccomyces lutescens, also known as C. hiemalis or Cylindrosporium padi, which causes a well known disease of cultivated cherry. (1, 5, 6)

Collections of cherry seedling leaves showing severe spotting were made in the Allegheny National Forest on August 19, September 9 and October 5, 1965. None of these collections manifested typical symptoms of the common leaf spot disease as described on cultivated cherry. (1).

Samples of these three collections were therefore examined under the microscope and compared with 16 different collections of Coccomyces lutescens in the Plant Pathology herbarium at Cornell. The fungus in each of the three collections from the Allegheny N.F. turned out to be a Cercospora, which was determined by Dr. Charles Chupp, world authority on the genus, to be Cercospora graphioides. (3)

C. graphioides has been reported on Prunus serotina from Pennsylvania under the name C. circunscissa (4), and from Iowa and Wisconsin (2). No mention has yet been found that it causes a disease of serious consequences.

It appears probable that the reports of cherry leaf spot on Prunus serotina in the Allegheny National Forest actually refer to a disease caused by a species of Cercospora rather than to a Coccomyces. This difference would be of small moment were it not for the fact that the control of these two fungi is quite different!

Control by spraying has been well worked out for the disease caused by Coccomyces on cultivated cherry. No reports can be found on control tests for Cercospora on wild cherry. However, it is generally known that this fungus responds to the fungicides Maneb and Nabam if the applications are made early in the day. This because the fungus Cercospora germinates under moist conditions of early morning dew, and penetrates the leaf tissues only thru stomates, which soon close as the day advances.

DSW

TCW

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4, Fergus, C.L. and F.D.Kern
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(according to Chupp, circumscissa is same as graphioides)

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